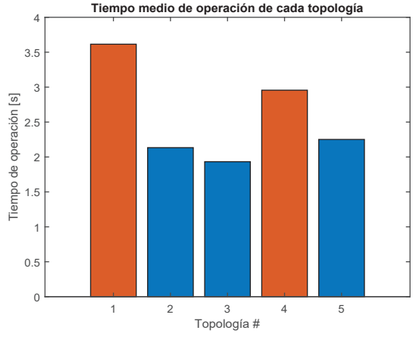
COMPUTATIONAL TOOL FOR SETTING AND COORDINATION OF OVERCURRENT RELAYS WITH MULTIPLE SETTING GROUPS IN DISTRIBUTION NETWORKS

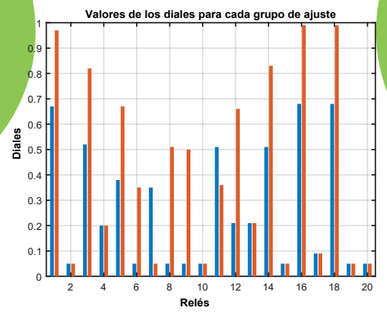
Data entry, CTI, time dial setting (TDS) intervals

The topologies were grouped according to the short-circuit currents, in a determined number of clusters

Application of the k-means technique to group topologies



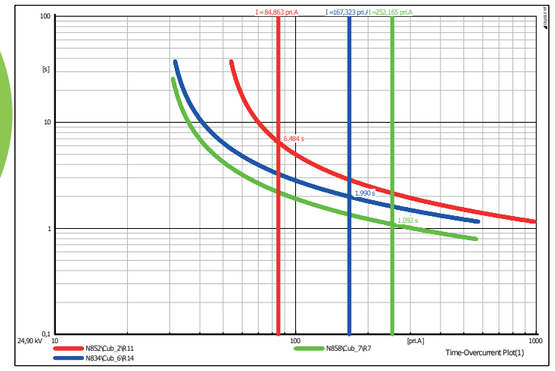
Linear programming technique



Implementation of linear programming algorithm to each cluster, to obtain the TDS's

DIGSILENT

Protection system simulation in DIgSILENT



The results were validated, verifying that in vent of failure the protections act correctly.